IN THE CLAIMS:

1. (Canceled)

2. (Original) An electric discharge machining apparatus using linear motor drive in which a machining power supply unit supplies a machining power in a space between an electrode and a workpiece and the workpiece is machined while the electrode and the workpiece are moved in relation to each other by means of a driving device implemented by a linear motor,

wherein the electric discharge machining apparatus using linear motor drive comprises:

a magnet supporting plate for supporting a magnet which is on the secondary side of the linear motor;

a base plate formed with at least one hole portion;

a spacer for holding the magnet supporting plate and the base plate while leaving a predetermined space therebetween; and

a cooling device for injecting compressed gas from the hole portion of the base plate toward the magnet supporting plate.

3. (Original) The electric discharge machining apparatus according to claim 2, wherein the magnet supporting plate is formed with a cooling fin.

4. (Previously Presented) The electric discharge machining apparatus according to claim 2, wherein a dust cover is provided around the driving device configured by the linear motor.

5. (New) The electric discharge machining apparatus according to claim 2, further comprising:

a compressor for providing compressed gas; and

a dryer for removing moisture from the compressed gas provided by the compressor.

6. (New) The electric discharge machining apparatus according to claim 5, further comprising a regulator for controlling the pressure of the compressed gas.

7. (New) The electric discharge machining apparatus according to claim 3, further comprising a heat conductive grease interposed between the magnet supporting plate and the cooling fin.

8. (New) The electric discharge machining apparatus according to claim 4, wherein the inside of the dust cover is maintained at a positive pressure.

9. (New) The electric discharge machining apparatus according to claim 2, wherein the magnet and the magnet supporting plate are in contact with one another.

10. (New) The electric discharge machining apparatus according to claim 2, wherein base plate and the magnet supporting plate are disposed so as to be parallel to one another.

11. (New) An electric machining apparatus using a linear motor drive in which a machining power supply unit supplies a machining power in a space between an electrode and a workpiece and the workpiece is machined while the electrode and the workpiece are moved in relation to each other by means of a driving device implemented by a liner motor, the electric discharge machining apparatus comprising:

a moving part which is on a primary side of the linear motor and which has a first magnet;

a magnet supporting plate which is on a secondary side of the linear motor and on which a second magnet is supported, wherein the moving part moves by interaction between the first and second magnets;

a base plate formed with at least one hole portion;

a spacer for holding the magnet supporting plate and the base plate while leaving a predetermined space therebetween; and

a cooling device for injecting compressed gas from the hole portion of the base plate toward the magnet supporting plate.